

ELECTRONICS TEST CENTRE

WINTER 1986 ISSUE 1.1

SPONSORED BY THE ALBERTA RESEARCH COUNCIL

ISSN 0830-0291

D.O.C. Approval Helps West's Telecomm Firms

On January 15, 1986, Canada's Federal Department of Communications (DOC) approved the Electronics Test Centre (ETC) as a test facility for terminal attachment.

With this approval, telecommunications manufacturers and suppliers of terminal equipment in Canada and overseas can use the Centre to test products designed to be connected to the Public Switched Telephone Network (PSTN) and the Teletypewriter Exchange Services Network (TWX).

The DOC approval applies to CS-03, 'Standards for Terminal Equipment, Systems and Connectors', a specification intended to protect the network from harm or damage caused by the interconnection of non-standard equipment. The DOC has fully approved the equipment, methods and reporting procedures in use by the ETC.

The Centre can, in fact, complete and submit a formal application to DOC for product certification of a client's prototype, thus providing a "one stop" service in developing new telecommunications products.

To obtain the approval, the Test Centre underwent a stringent DOC evaluation of its facilities and test methods in accordance with DOC specification CP-01, Issue 5, 'Terminal Attachment Program — Certification Procedure'.

Following DOC's own procedures for approval of test facilities, the evaluation involved a thorough review of all applicable internal procedures as well as the performance of the hardware and software installed in the ETC's Terminal Attachment Test (TAT) laboratory.

This approval is expected to be followed shortly by other accreditations for the Centre (see story page 2).

Welcome to 1.1

The ETC Newsletter is designed to keep the electronics industry in touch with activities and progress in this growing economic sector.

The Centre itself, which officially opened December 5, 1985 (see below), is a not-for-profit organization dedicated to helping the electronics industry with testing and product certification.

At the early design stage, the Centre provides engineers with information on the standards and regulations that shape a new product's working environment.

The Centre also assists with evaluating product integrity, reliability and maintainability.

Brochures describing ETC's capabilities along with technical sheets on our facilities are available on request. At the same time, we'd appreciate your comments and suggestions for this newsletter, which we fully intend to be as responsive as the Centre itself.

Officials from the Japan Metals and Machinery Institute (JMI) and the Electronics Test Centre, flanked by two of Canada's finest, pose during the December 5th opening of the ETC.



Accreditation in Final Stages

With CS-03 approval from DOC in place (story page 1), the Electronics Test Centre is expecting other approvals to be received soon from the Standards Council of Canada (SCC) and the Department of National Defense (DND).

This added accreditation gives the Centre the foremost "seal of approval" available in Canada for a testing facility. Customers of the Centre, both domestic and international, will be assured that the ETC's facilities, people and procedures are capable of performing tests to demonstrate compliance with most telecommunications standards.

The SCC was created to foster and promote standardization in many technical disciplines and accredits testing and certification organizations which meet its strict criteria.

DND approval will help ETC clients participate in Canadian military projects.

Support for Exports

The ETC is also ensuring it can support firms intending to export electronics technology to the U.S. The Centre has now complied with the regulations of the U.S. Federal Communications Commission (FCC).

For FCC Part 15 testing, covering radiated and conducted emissions, the ETC filed its Open Field Test Site Characterization Report in December, 1985.

To meet FCC Part 68 regulations for telephone equipment and data terminals, the Centre's Terminal Attachment Test (TAT) system is equipped with appropriate software.

Combined with information on these regulations and copies of the FCC forms required for product registration, the Electronics Test Centre is in an excellent position to help companies obtain certification for export to the United States.



Staff Profile: Our Man in TAT John Rymkiewicz

John Rymkiewicz is the Electronics Test Centre's senior engineer responsible for Terminal Attachment Testing (TAT). With over nine years experience in telecommunications engineering, John is well qualified to help customers obtain approval for terminal attachment products.

According to John, "Federal agencies such as DOC and FCC really put us through our paces before granting our accreditation.

"We know we must stay on top of TAT technology in order to help our customers. With our software controlled testing system, we're reducing the testing time for a touch-tone telephone set from around 80 hours to under 4!"

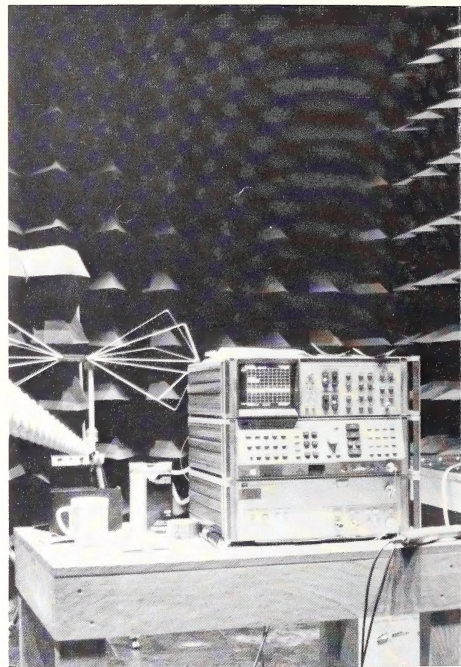
John was born in Poland and emigrated to Canada in 1982 with his wife and two children. He received a B.Sc. in Electrical Engineering from the Technical University of Gdansk and will complete his Masters Degree in Electrical Engineering from the University of Ottawa in 1986.

Before joining the Test Centre, he worked for a test laboratory in Ottawa where he performed terminal attachment product testing and designed equipment for specialized telephone testing.

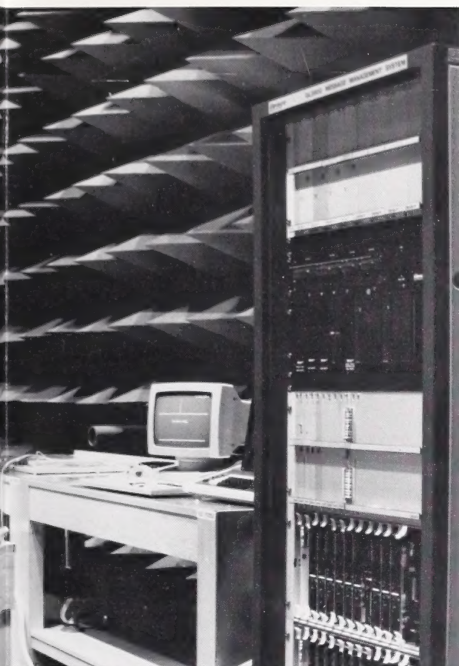
John has the knowledge and experience to help customers of the Centre test their terminal attachment products. He can be reached at (403) 450-5375 to discuss engineering requirements.

Client Profile: Glenayre Electronics

New Software Phone Answering Save 25%-40% on Labour



Software-Controlled Answering System To Save 40% Costs



The Glenayre GL3900 is run through tests in the RF Anechoic Chamber at the Electronics Test Centre in preparation for final field trials and the market launch.

John Rymkiewicz checks the signal before running a TAT program in the Test Centre's computerized terminal attachment lab.

Glenayre Electronics Ltd. is set to market a new Message Management System in Canada and the United States following a successful series of tests run at the Electronics Test Centre.

Soon to be released commercially, the new software-controlled system has been designed for smaller telephone answering operators and promises significant savings in labour costs.

Glenayre is a Vancouver-based manufacturer of advanced telecommunications products with an impressive record in both new product development and increased revenues and profits.

Peter Carr, a Design Engineer with Glenayre has spent most of the last two months at the Electronics Test Centre in

Edmonton, watching closely as the Glenayre GL3900 Message Management System has been run through certification testing.

With both the U.S. and Canada identified as target markets for the GL3900, testing covered both Canada's Department of Communications (DOC) and the United States Federal Communications Commission (FCC) standards.

According to Peter, "Without the help of the Test Centre, the introduction to market of the GL3900 could have been seriously delayed while we obtained all the regulatory approvals."

"Understood Our Goals"

"The Test Centre understood our goals and helped us reach them."

The key to the effectiveness of the GL3900 is in its software control. By automating many significant functions, the new system will provide operators with as few as 300 accounts a projected 25% to 40% savings in labour costs.

Pricing of the GL3900 in comparison to competitive products should make it an affordable system for these smaller TAS operators.

Now that the system has undergone DOC and FCC testing at the Electronics Test Centre, the new Message Management System will soon be released commercially in both countries after completion of field trials.

The Electronics Test Centre Newsletter is published four times a year and distributed free-of-charge to a controlled circulation list.

Publisher: Brian G. Young

Editor: John M. Beddoes

Photography: Fred W. Radtke, unless noted

Production: Ladd + Associates

For change of address, or to suggest additions to our mailing list:

ELECTRONICS TEST CENTRE

SPONSORED BY THE ALBERTA RESEARCH COUNCIL

250 Karl Clark Road

P.O. Box 8330

Postal Station 'F'

Edmonton, Alberta T6H 5X2

Hosted by Electronics Test Centre

"Measurements" Meeting Presents West's Concerns

Advancement of the Canadian National Measurements System took another step forward in late January at an Edmonton meeting sponsored by the Electronics Test Centre, the National Research Council (NRC) and the Department of National Defense (DND).

Held on January 28, 1986, people from government, universities and private industry were advised on the activities of several national organizations in electronic measurement.

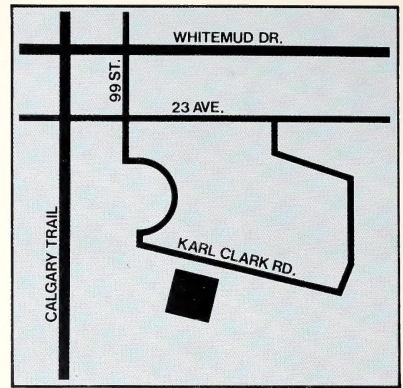
The National Research Council, through an associate committee on Standards of Physical Measurement, is examining the development of a national measurement system covering all procedures and mechanisms relating to physical measurement.

For the 36 attendees, the all-day event was both a briefing meeting and an opportunity to bring together the interests and

concerns of Western Canada. All agreed on the usefulness of this gathering as a way to help the various agencies in Ottawa responsible for advancing the system.

The Edmonton meeting addressed the topic with presentations from Drs. Jacques Vanier and Andy Dunn of NRC, Graham Cameron of DND, Gary Hysert of the Standards Council of Canada and John Leckey representing Hewlett-Packard Canada Ltd.

Graham Cameron also presented a short talk on the work and objectives of the National Conference of Standards Laboratories (NCSL). This international association has 35 Canadian members, one of which is the Electronics Test Centre. In the afternoon, attendees had an opportunity to tour the Centre's terminal attachment, environmental, and dynamics labs as well as see tests underway in the RF Anechoic Chamber and Open Field Test Site.



How to Find Us:

The Electronics Test Centre is just south of the Edmonton Research and Development Park in South Edmonton, about 15 minutes from the International Airport. Our Switchboard Number is (403) 450-5370; Telex is 037-2147.

Up to 30,000 volts of electrostatic electricity can be generated by walking across a plush carpet in the middle of the Canadian Winter. Do you know how to design equipment to minimize the dangers of malfunction through electrostatic discharge (ESD)? The Electronic Test Centre can help you.

New Addition to Alberta's Information Network

Information is the life-blood of any organization. Companies involved in the rapidly changing field of electronics must have immediate access to the latest issues of national and international standards, specifications, approval and certification procedures and the many technical journals which cover the industry.

The Electronics Test Centre has

established a Documentation Centre available to staff and clients as a ready source of this information.

In addition to cataloguing procedural manuals, specification documents, handbooks, guides and directories from government and electronic associations, the Centre is now part of the Province of Alberta's technical information network.

This network of technical data includes the resources of the Industrial Information Service and Library Service of the Alberta Research Council and the University of Alberta Cameron Library.

To set up and manage the information flow, Linda Hilt has been appointed the Test Centre's

Documentation Specialist.

During the formation of the Documentation Centre, Linda visited corresponding centres at the Standards Council of Canada, Department of National Defense, Bell Northern Research Technical Library and the Canadian Institute for Scientific and Technical Information at the National Research Council.

International contacts have also been established with similar organizations in Europe, the Far East and the United States. Linda would be happy to assist a client or potential client of the Test Centre with information on standards or documentation affecting electronics testing. She can be reached at (403) 450-5371.

